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No. 17

EXPERIMENT STATION FILE

Issued April 15, 1919

## UNITED STATES DEPARTMENT OF AGRICULTURE, FOREST SERVICE.

HENRY S. GRAVES, Forester.

# April Field Program. 1919.

This program of field-work assignments in the Forest Service is issued quarterly, on the 15th day of July, October, January, and April, and is for the exclusive use of members of the Service and cooperating bureaus. The names of members whose assignments are not yet fixed are necessarily omitted. All orders and other instructions printed in the Field Program will apply to all districts.

It is requested that the members of the Forest Service cooperate in making this program complete and accurate.

Unless the address of a member is given in this program or is definitely known, he should be addressed in care of the Forest Service, Washington, D. C.

## OFFICE OF THE FORESTER.

HENRY S. GRAVES, Forester.

ALBERT F. POTTER, Associate Forester. WILLIAM L. HALL, Assistant Forester. E. A. SHERMAN, Assistant Forester.

D. D. BRONSON, forest inspector.

A. O. WAHA, forest inspector.

G. G. Anderson, assistant to the Forester.

MAINTENANCE.—BILLIE I. SHANNON, in charge.

STENOGRAPHY AND TYPEWRITING.—BERTHA E. ADAMS, in charge. SUPPLIES.—S. L. McLaurin, property clerk.

EDITOR.—HERBERT A. SMITH.

INFORMATION .- PAUL D. KELLETER.

TECHNICAL REVIEW .- L. C. EVERARD.

PROOFS AND FORMS .- C. M. BALLARD.

DENDROLOGY .- GEORGE B. SUDWORTH, dendrologist.

ACCOUNTS .- M. E. FAGAN, chief.

SUPPLY DEPOT, OGDEN, UTAH.—A. H. Cousins, property assistant. PROPERTY AUDIT, OGDEN, UTAH.—J. G. FALCK, property auditor.

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## SILVICULTURE.

E. E. CARTER, assistant forester, in charge; CLINTON G. SMITH, forest inspector; HARRY IRION, office assistant.

STATE COOPERATION .- J. G. PETERS, chief.

Inspection.-L. S. Murphy, J. A. Mitchell.

Compilation of State forest laws.-Miss J. S. Peyton.

State cooperative fire protection under the Weeks law.—F. H. Colby, land agent and forest commissioner, Augusta, Me.; E. C. Hirst, State forester, Concord, N. H.; W. G. Hastings, chief forester, Montpelier, Vt.; F. W. Rane, State forester, Boston, Mass.; J. B. Mowry, commissioner of forestry, Chepachet, R. I.; W. O. Filley, State forester, New Haven, Conn.; W. G. Howard, assistant superintendent of forests, Albany, N. Y.; C. P. Wilber, State fire warden, Trenton, N. J.; F. W. Besley, State forester, Baltimore, Md.; R. C. Jones, State forester, Charlottesville, Va.; C. W. Brandon, forest, game, and fish warden, Philippi, W. Va.; J. S. Holmes, State forester, Chapel Hill, N. C.; J. E. Barton, commissioner of forestry and geology, Frankfort, Ky.; R. D. Forbes, superintendent of forestry, New Orleans, La.; E. O. Siecke, State forester, College Station, Tex.; W. J. Pearson, chief forest fire warden, Boyne Falls, Mich.; ----, conservation commissioner, Madison, Wis.; Wm. T. Cox, State forester, St. Paul, Minn.; W. A. Nevin, State forester, Custer, S. Dak.; J. C. Van Hook, State forester, Helena, Mont.; I. H. Nash, State land commissioner, Boise, Idaho; F. A. Elliott, State forester, Salem, Oreg.; F. E. Pape, State forester and fire warden, Olympia, Wash.

COOPERATION WITH PRIVATE TIMBERLAND OWNERS.—A. CARY, acting in charge.

## GRAZING.

WILL C. BARNES, assistant forester, in charge; J. W. NELSON, inspector of grazing.

GRAZING STUDIES (in cooperation with F. V. COVILLE, botanist, Bureau of Plant Industry).—James T. Jardine, inspector of grazing, in charge.

Forage investigations.—William A. Dayton, plant ecologist, Washington, D. C.

Goat range study.—William R. Chapline, grazing examiner, Washington, D. C.

Range reserve experiments.—Jornada Reserve: Clarence L. Forsling, grazing examiner, in charge, Las Cruces, N. Mex. Santa Rita Reserve: R. L. Hensel, forest examiner, in charge, Tucson, Ariz.

## LANDS.

E. A. SHERMAN, assistant forester in charge; C. H. SQUIRE, inspector of lands; W. J. MANGAN, examiner.

CLAIMS AND OCCUPANCY.—C. H. SQUIRE, in charge.

LAND CLASSIFICATION .- JOHN D. JONES, in charge.

SETTLEMENT .- F. L. HARVEY, in charge.

BOUNDARIES AND ENTRY SURVEYS .- R. V. REYNOLDS, in charge.

STATUS .-- J. B. SATTERLEE, J. E. BURCH.

## RESEARCH.

EARLE H. CLAPP, assistant forester in charge; S. T. Dana, Henry E. Surface (on detail); Franklin H. Smith, A. H. Pierson; collaborator, A. B. Strough, Albany, N. Y. Harry Irion, office assistant.

FOREST INVESTIGATIONS.—RAPHAEL ZON, chief.

Studies.—C. R. Tillotson, W. D. Sterrett, W. N. Sparhawk, E. R. Hodson, E. H. Frothingham; A. F. Hawes and W. R. Mattoon (in cooperation with the States Relations Service); Willis Munro (in cooperation with the Bureau of Entomology).

FOREST DISTRIBUTION.—W. H. LAMB, in charge; Miss G. E. Wharton. FOREST MEASUREMENTS.—W. B. BARROWS.

LIBRARY.—Miss H. E. STOCKBRIDGE.

COMPILATION.—Miss E. B. LEECH.

Cloquet Experiment Station in cooperation with the University of Minnesota.—W. H. Kenety, Cloquet, Minn.

FOREST PRODUCTS LABORATORY (in cooperation with the University of Wisconsin, Madison, Wis.).—Carlie P. Winslow, director; O. M. Butler, assistant director; Don P. Johnston, assistant district forester; H. D. Tiemann, dry-kiln specialist; P. R. Hicks, engineer in forest products.

Publication of Results.—Charles R. Thomas, in charge; Samuel Morell, jr.; Ray C. Tuttle.

DERIVED PRODUCTS.—L. F. HAWLEY, in charge; Ernest Bateman, Samuel A. Mahood, E. C. Sherrard, Howard N. Calderwood, G. W. Blanco, D. E. Cable, George G. Town.

Pulp and Paper.—Otto Kress, in charge; H. E. Surface (on detail, Washington office); Sidney D. Wells, V. P. Edwardes, C. L. Bachelder, John A. Mitchell.

TIMBER MECHANICS.—J. A. NEWLIN, in charge; L. J. Markwardt, T. R. C. Wilson, J. S. Mathewson, G. E. Heck, Armin Elmendorf, H. S. Grenoble, R. Crane, R. P. A. Johnson, J. O. Bixby, R. F. Luxford, C. A. Plaskett, H. J. Rosenthal, S. Schwartz, J. R. Watkins, L. A. Welo, P. M. Wirka, H. D. Frary, C. B. Norris, Frank C. Milliman, John M. Gahagan.

Box Tests.——, in charge; L. R. Morris, J. B. Frear, L. P. Elliott, A. F. McDuffie.

TIMBER PHYSICS.—ROLF THELEN, in charge; C. V. Sweet, A. Koehler, Eloise Gerry, C. W. Gould, M. C. Jensen, Lawrence V. Teesdale, D. R. Brewster, J. L. Brownlee, Nils B. Eckbo, James D. Studley, W. Karl Loughborough, Gertrude Griffin.

WOOD PRESERVATION.—CLYDE H. TEESDALE, in charge; George M. Hunt, Matthew E. Dunlap, Shirley W. Allen, Alfred C. Lindauer, Frederick L. Browne, Samuel Butterman, T. R. Truax, R. A. Colgan, C. K. Cooperider, Clarence Coye, J. D. MacLean.

Propeller Tests.—A. L. Heim, in charge; A. C. Knauss, Louis Seutter, . Carl A. Menzel, T. J. Medicielo.

LUMBER STUDIES.—, in charge; D. G. White.

PATHOLOGY (in cooperation with Bureau of Plant Industry).— C. J. HUMPHREY, in charge; N. O. Howard, C. Audrey Richards, Rose Lichtenwalter.

LABORATORY OPERATION.—J. D. DEIHL, administrative assistant; Charles P. Juckem, executive clerk; Edward P. Ancona, deputy forest supervisor.

Accounts.—Oscar M. Wold, fiscal agent.

Engineering.—B. L. Nelson, assistant engineer in forest products.

Photography.—M. E. Diemer, chemist in forest products.

Computing.—H. T. Burgess, computing specialist.

Library.—Miss S. D. Kinney.

FOREST PRODUCTS.—H. S. Betts, in charge; W. D. Brush, H. P. Burden, J. D. Harris, R. K. Helpenstine, jr.

## ENGINEERING.

O. C. MERRILL, chief engineer, in charge.

ROADS.—T. W. NORCROSS, assistant chief engineer, in charge.

WATER POWER.—RALPH R. RANDELL, assistant engineer, in charge.

Maps and Surveys.—F. E. Bonner, assistant engineer, in charge (temporarily on detail to Denver); C. A. Kolb, geographer.

ATLAS.—G. B. BRUCE.

DRAFTING.-J. M. WITHEROW.

ENGRAVING.—T. S. BROCK.

PHOTOGRAPHY.—E. S. SHIPP.

SURVEYS .- F. E. BONNER (on detail to Denver).

## ACQUISITION OF LANDS UNDER THE WEEKS LAW.

WILLIAM L. HALL, assistant forester in charge.

APPRAISAL OF LANDS.—W. W. ASHE, forest inspector in charge, Washington, D. C. Lumberman's examinations: E. D. Fletcher, Gorham,

N. H. Forest examiners: White Mountain Area, H. S. Davis and party, Gorham, N. H.; Shenandoah Area, S. H. Thompson and party, Harrisonburg, Va.; Natural Bridge, Massanutten, and Potomac Areas, H. M. Sears and party, Buena Vista, Va.; Boone and Mount Mitchell Areas, W. J. Damtoft, Asheville, N. C.; Georgia Area, C. E. Beaumont and party, Athens, Tenn.; Alabama Area, S. L. Corbin, forest assistant (in charge of party), Moulton, Ala.

Survey of Lands.—Rudolph Dieffenbach, forest examiner in charge; Harold G. Wood, national forest examiner, Washington, D. C. Examiners of surveys: White Mountain Area, Frederick A. Gardner, Gorham, N. H.; Shenandoah Area, E. R. Conrad and Carl F. Muzzey, Harrisonburg, Va.; Nantahala Area, J. W. Fox, Clayton, Ga.; Mount Mitchell Area, Dave M. Gibson and Walter H. Sullivan, Marion, N. C.; Pisgah Area, James Denman, Asheville, N. C.; Natural Bridge Area, Alfred R. Kinney, Buena Vista, Va.; Savannah Area, W. N. Sloan, Clayton, Ga.

LAW.—A. H. McConville, assistant to the solicitor in charge, Washington, D. C. Title attorneys: M. B. Stickley, Washington, D. C.; George E. Taylor, Murphy, N. C.; Alfred S. Grigg, Johnson City, Tenn.; Julius Fletcher, Lenoir, N. C.; Judson S. Bohannan, Moulton, Ala.; John W. Van Hoy, Mena, Ark.; John Awtrey, Franklin, N. C.; W. L. Newman, Woodstock, Va.; Pierce R. Massie, Lynchburg, Va.; H. A. Lamprey, Woodsville, N. H.; John C. Forney, Moulton, Ala.

## DISTRICT 1.

#### NORTHERN DISTRICT.

Montana, northeastern Washington, northern Idaho, and northwestern South Dakota. Office, Federal Building, Missoula, Mont.

R. H. RUTLEDGE, acting district forester.

LAW.—Office of the Solicitor (Forest Service branch). D. F. Mc-GOWAN, assistant to the solicitor, in charge.

ACCOUNTS .- JOHN A. URBANOWICZ, district fiscal agent.

OPERATION.—GLEN A. SMITH, assistant district forester; G. I. PORTER, executive assistant; R. B. ADAMS, telephone engineer; C. C. DELAVAN, fire protection.

MAINTENANCE.—F. W. BEIER, JR.

SILVICULTURE .- J. F. PRESTON, assistant district forester.

LOGGING ENGINEERING.—J. W. GIRARD, U. S. SWARTZ.

TIMBER SALES.—C. B. BAKER, administrative assistant. Field supervision, C. E. KNOUF, lumberman.

PLANTING.—E. F. WHITE, in charge. Savenac Nursery, D. S. Olson, planting assistant, in charge, Haugan, Mont.

PRODUCTS.—C. N. WHITNEY, forest examiner.

INSECT CONTROL. ----

RESEARCH.— ----

JAMES R. WEIR, consulting pathologist; E. E. Hubert, assistant, 408 Columbia Building, Spokane, Wash.

GRAZING.—C. H. ADAMS, assistant district forester; BURR W. CLARK, executive assistant.

STUDIES.—L. C. HURTT, grazing examiner.

LANDS.—F. A. FENN, assistant district forester.

CLAIMS.—P. J. O'BRIEN, law examiner; F. R. INGALSBE, mineral examiner.

SETTLEMENT.— ----.

LAND CLASSIFICATION.—C. B. SWIM, assistant.

ENGINEERING.—G. H. LAUTZ, district engineer; F. E. THIEME, assistant district engineer.

MAPS AND SURVEYS .- G. H. LAUTZ, in charge.

Drafting.-K. D. SWAN.

Entry Surveys.—F. E. THIEME, in charge.

Topographic Surveys.—J. B. YULE.

ROADS.—G. H. LAUTZ, in charge.

WATER POWER.—E. W. KRAMER, in charge.

#### EXPERIMENT STATION.

Priest River, Kaniksu National Forest.—Julius A. Larsen, forest examiner, acting in charge, Priest River, Idaho.

#### NATIONAL FORESTS.

#### IDAHO.

Clearwater.—R. A. Hamilton, forest supervisor, Orofino (WU).

Coeur d'Alene.—M. H. Wolff, forest supervisor, Coeur d'Alene (WU);

C. L. Billings, lumberman; James H. Hull, forest examiner.

Kaniksu.—See Washington.

Nezperce.—S. V. Fullaway, Jr., forest supervisor, Grangeville (WU); F. J. Jefferson, deputy forest supervisor.

Pend Oreille.—J. A. FITZWATER, forest supervisor, Sandpoint (WU);
Jas. E. Ryan, deputy forest supervisor.

Selway.—CHARLES F. HOWELL, forest supervisor, Kooskia (WU); John H. Clack, deputy forest supervisor.

St. Joe.—Roscoe Haines, forest supervisor, St. Maries (Continental).

#### MONTANA.

Absaroka.—Ernest W. Shaw, forest supervisor, Livingston (WU); Frank J. Mosher, forest examiner.

- Beartooth.—R. TREVOR FERGUSON, forest supervisor, Billings (WU);
  A. M. Baum, deputy forest supervisor.
- Beaverhead.—J. B. Somers, forest supervisor, Dillon (WU); A. Price Townsend, deputy forest supervisor.
- Bitterroot.—W. W. White, forest supervisor, Missoula (WU, P); Mallory N. Stickney, deputy forest supervisor.
- Blackfeet.—R. P. McLaughlin, forest supervisor, Kalispell (WU); R. G. Merritt, forest examiner; R. L. Woesner, lumberman.
- Cabinet.—H. L. BAKER, forest supervisor, Thompson Falls (WU).
- Custer.—J. C. Whitham, forest supervisor, Miles City (WU); O. C. Bradeen, deputy forest supervisor.
- Deerlodge.—Lewis C. Stockdale, forest supervisor, Anaconda (P); W. W. Weber, deputy forest supervisor; W. C. Latane, forest examiner.
- Flathead.—Joseph D. Warner, forest supervisor, Kalispell (WU); L. G. Hornby, deputy forest supervisor; C. S. Webb, scaler.
- Gallatin.—R. E. Bodley, forest supervisor, Bozeman (WU).
- Helena.—C. K. McHarg, Jr., forest supervisor, Helena (WU); A. H. Abbott, deputy forest supervisor.
- Jefferson.—W. B. WILLEY, forest supervisor, Great Falls (WU); W. J. Derrick, deputy forest supervisor.
- Kootenai.—C. M. STEVENS, forest supervisor, Libby (WU); Leslie F. Vinal, deputy forest supervisor.
- Lewis and Clark.—DWIGHT L. BEATTY, forest supervisor, Choteau (WU). Lolo.—Elers Koch, forest supervisor, Missoula (WU, P).
- Madison.—Roscoe G. Willson, forest supervisor, Sheridan (WU).
- Missoula.—RUTLEDGE PARKER, forest supervisor, Missoula (WU, P).
- Sioux.—J. C. Whitham, forest supervisor, Miles City (WU); O. C. Bradeen, deputy forest supervisor.

#### WASHINGTON.

Kaniksu.—H. R. FLINT, forest supervisor, Newport (WU via Priest River-Exp., via Priest River); A. J. Feary, deputy forest supervisor; C. R. Clark, forest examiner.

## DISTRICT 2.

#### ROCKY MOUNTAIN DISTRICT.

Colorado, Wyoming, South Dakota, Nebraska, northern Michigan, and northern Minnesota. Office, New Federal Building, Denver, Colo.

SMITH RILEY, district forester; W. I. HUTCHINSON, information; Peter Keplinger, education.

LAW.—Office of the Solicitor (Forest Service branch). Geo. E. Trowbridge, assistant to the solicitor, in charge.

ACCOUNTS.—Q. R. CRAFT, district fiscal agent.

OPERATION.—FRED MORRELL, assistant district forester; John Mc-Laren, national forester examiner, fire protection; H. R. Kylie, telephone engineer; Arthur M. Cook, improvements.

MAINTENANCE.-F. H. CARROLL.

SILVICULTURE.—M. W. THOMPSON, forest examiner in charge; C. A. Dahlgren, lumberman.

PLANTING.—FRED R. JOHNSON.

FOREST INVESTIGATIONS.—C. G. BATES.

CARL HARTLEY, consulting pathologist, Denver, Colo.

GRAZING.—John H. Hatton, assistant district forester; Lynn H. Douglas, inspector of grazing.

STUDIES.—LYNN H. DOUGLAS, inspector of grazing, in charge; Jesse M. Mann, grazing assistant.

LANDS.—C. J. STAHL, assistant district forester; Thos. M. Moorman, assistant; Crosby A. Hoar, classification and exchange; J. B. Cammann, mineral examiner; Arthur H. Carhart, recreation engineer.

ENGINEERING.—F. E. Bonner, acting district engineer; J. L. Brownlee, assistant district engineer.

MAPS AND SURVEYS .-- ---

Drafting.—C. B. Gosorn, acting.

Entry Surveys .- W. C. CAMPBELL.

Topographic Surveys.—J. Burgess, acting.

ROADS.—F. E. BONNER, in charge; R. M. GUMAER, inspector.

WATER POWER .-- .

#### EXPERIMENT STATIONS.

Fremont, Pike National Forest.—C. G. BATES, Manitou, Colo. Wagon Wheel Gap, Rio Grande National Forest.—J. H. JARBON, of the Weather Bureau, Wagon Wheel Gap. Colo.

#### NATIONAL FORESTS.

#### COLORADO.

Arapaho.—Dwight S. Jeffers, forest supervisor, Hot Sulphur Springs (WU); H. H. RICHMOND, forest examiner.

Battlement.—John W. Spencer, forest supervisor, Grand Junction (WU). Cochetopa.—ALVA A. SIMPSON, forest supervisor, Saguache (WU); Clarence E. Taylor, forest examiner.

- Colorado.—H. N. WHEELER, forest supervisor, Fort Collins (WU); Wallace J. Pearce, deputy forest supervisor.
- Durango.—H. EARL FRENCH, forest supervisor, Durango (WU); Wm. R. Fraser, deputy forest supervisor.
- Gunnison.—WILLIAM R. KREUTZER, forest supervisor, Gunnison (WU).

Hayden.—See Wyoming.

- Holy Cross.—HARRY H. FRENCH, forest supervisor, Glenwood Springs (WU); Robert H. Easterbrooks, forest examiner.
- Leadville.—R. E. CLARK, forest supervisor, Leadville (WU, P).
- Montezuma.—Gordon Parker, forest supervisor, Mancos (WU); Charles Steuart, forest examiner.
- Pike.—Theo. Shoemaker, forest supervisor, Denver (WU, P); Carl M. Stanley, deputy forest supervisor; Everard S. Keithley, forest examiner. Monument Nursery, W. H. Schrader, forest planting assistant, in charge, Monument.
- Rio Grande.—A. L. SWEITZER, forest supervisor, Monte Vista (WU); Walter F. Bowers, deputy forest supervisor.
- Routt.—RAY PECK, forest supervisor, Steamboat Springs (WU).
- San Isabel,—ALBIN G. HAMEL, forest supervisor, Westcliffe (WU).
- San Juan.—A. F. C. HOFFMAN, forest supervisor, Pagosa Springs (WU); Chas. B. Mack, deputy forest supervisor.
- Sopris.—ARTHUR T. UPSON, forest supervisor, Aspen (WU); Willard C. Hassel, forest examiner.
- Uncompangre.—J. W. Lowell, Jr., forest supervisor, Delta (WU); Harold L. Borden, forest examiner.
- White River.—James A. Blair, forest supervisor, Glenwood Springs (WU); Theodore Krueger, forest examiner.

#### MICHIGAN.

Michigan.—Huber C. Hilton, forest supervisor, East Tawas (WU).

Beal Nursery, East Tawas.

#### MINNESOTA.

- Minnesota.—G. E. MARSHALL, forest supervisor, Cass Lake (WU). Cass Lake Nursery.
- Superior.—Leslie Brownell, forest supervisor, Ely (WU); Robert G. Schreck, forest examiner.

#### NEBRASKA.

Nebraska.—Jay Higgins, forest supervisor, Halsey (WU). Morton Nursery, Nenzil. Bessey Nursery, Harry C. Turner, forest planting assistant, in charge, Halsey.

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#### SOUTH DAKOTA.

Black Hills.—George A. Duthie, forest supervisor, Deadwood (WU);
L. E. Hitchcock, forest examiner; Earl W. Tinker,
forest examiner.

Harney.—James F. Conner, forest supervisor, Custer (WU); Bernard E. Leete, forest examiner.

#### WYOMING.

Bighorn.—Ress Philips, forest supervisor, Sheridan (WU); Andrew G. Stockwell, deputy forest supervisor.

Black Hills .- See South Dakota.

Hayden.—James Blackhall, forest supervisor, Encampment (WU, P).

Medicine Bow.—Earl S. Peirce, forest supervisor, Laramie (WU, P);

Louis E. Coughlin, deputy forest supervisor; Andrew

Hutton, forest examiner.

Shoshone.—R. W. Allen, forest supervisor, Cody (WU); E. T. Wolf, forest examiner.

Washakie.—C. G. POOLE, forest supervisor, Lander (WU).

## DISTRICT 3.

#### SOUTHWESTERN DISTRICT.

Arizona and New Mexico. Office, Gas and Electric Building, Albuquerque, N. Mex.

PAUL G. REDINGTON, district forester; WARD SHEPARD, forest examiner, educational cooperation, and game protection.

LAW.—Office of the Solicitor (Forest Service branch). CHARLES S. BROTHERS, assistant to the solicitor, in charge.

ACCOUNTS.—ALBERT MORRIS, district fiscal agent.

OPERATION.—ROBERT L. DEERING, forest examiner, acting in charge of operation.

MAINTENANCE.—H. B. HAMMOND.

SILVICULTURE.—H. H. CHAPMAN, assistant district forester; D. M. LANG, lumberman; JOHN H. ALLISON and QUINCY RANDLES, forest examiners.

W. H. Long, consulting pathologist, Albuquerque, N. Mex.

GRAZING.—JOHN KERR, assistant district forester; PAUL H. ROBERTS, inspector of grazing.

STUDIES .- R. R. HILL and M. W. TALBOTT, grazing examiners.

LANDS.—FRANK C. W. POOLER, assistant district forester; FRANK E. Andrews, national forest examiner. Classification: Rex King, forest examiner.

ENGINEERING.—C. A. Long, district engineer; Lee C. Daves, assistant engineer.

MAPS AND SURVEYS .- LEE C. DAVES, in charge.

Drafting .- F. E. LANDON.

Entry Surveys.—Frank D. Yost, surveyor.

ROADS.—C. A. LONG, in charge.

WATER POWER.—C. A. LONG, in charge.

#### EXPERIMENT STATION.

Fort Valley, Coconino National Forest.—G. A. Pearson, forest examiner, in charge, Flagstaff, Ariz.

#### NATIONAL FORESTS.

#### ARIZONA.

Apache.—ROBERT J. SELKIRK, forest supervisor, Springerville (P).

Coconino.—RAYMOND E. MARSH, forest supervisor, Flagstaff (WU, P); Leonard R. Lessel and James W. Girdner, national forest examiners.

Coronado.—Paul P. Pitchlynn, forest supervisor, Tucson (WU); H. Basil Wales, forest examiner; Chas. L. Rak, deputy forest supervisor.

Crook.—T. T. SWIFT, forest supervisor, Safford (WU).

Prescott.—Edward G. Miller, forest supervisor, Prescott (WU); J. C. McNelty, deputy forest supervisor.

Sitgreaves.—T. C. Horr, forest supervisor, Snowflake (P); Kenner C. Kartchner, deputy forest supervisor.

Tonto.—W. H. GODDARD, forest supervisor, Roosevelt (WU); J. H. Sizer, deputy forest supervisor.

Tusayan.—IRA T. YARNALL, forest supervisor; Williams (WU, P); Francis L. W. Grubb, deputy forest supervisor.

#### NEW MEXICO.

Carson.— , forest supervisor, Taos (WU); L. R. De Camp, deputy forest supervisor.

Coronado.—See Arizona.

Datil.—Ausburn H. Douglas, forest supervisor, Magdalena (WU, P);
Robert Munro, national forest examiner; Thomas C.
Turk, deputy forest supervisor.

Gila.—Frederic Winn, forest supervisor, Silver City (WU, P); James A. Scott, deputy forest supervisor.

Lincoln.—O. F. Arthur, forest supervisor, Alamogordo (WU); William J. Anderson, deputy forest supervisor.

Manzano.—James F. Mullen, forest supervisor, Albuquerque (WU, P); L. J. Putsch, deputy forest supervisor.

Santa Fe.—Joseph C. Kircher, forest supervisor, Santa Fe (WU, P);
Earl W. Loveridge, deputy forest supervisor; Gordon
T. Backus, forest examiner. Las Gallinas Nursery,
Herman Krauch, forest examiner.

## DISTRICT 4.

#### INTERMOUNTAIN DISTRICT.

Utah, southern Idaho, western Wyoming, eastern and central Nevada, and northwestern Arizona. Office, Forest Service Building, Ogden, Utah.

L. F. KNEIPP, district forester.

LAW.—Office of the Solicitor (Forest Service branch). J. F. LAW-SON, assistant to the solicitor, in charge.

ACCOUNTS .- HOMER A. SEIP, district fiscal agent.

OPERATION.—Vernon Metcalf, assistant district forester; F. J. Ryder, national forest examiner, executive assistant; James E. Scott, national forest inspector; Elmer C. Ross, telephone construction.

MAINTENANCE.—JAMES E. SCOTT.

SILVICULTURE.—C. B. Morse, assistant district forester; D. F. Seerey, logging engineer; S. S. Stewart, forest examiner.

PLANTING.—E. H. HALL, in charge. Cottonwood Nursery, N. J. Fetherolf, planting assistant, in charge, Sugarhouse, Utah.

GRAZING.—HOMER E. FENN, assistant district forester; ERNEST WINKLER, inspector of grazing; S. B. Locke, forest examiner, fish and game.

STUDIES.—MARK ANDERSON, D. A. SHOEMAKER, and T. B. NICHOLS, grazing examiners.

LANDS.—C. N. Woods, assistant district forester; R. E. Gery, assistant; W. B. Rice, in charge of entry surveys.

RESEARCH.—C. F. KORSTIAN, forest examiner, in charge.

ENGINEERING .- J. P. MARTIN, district engineer.

Maps and Surveys .-- O. C. Lockhart. Jr.

Drafting.—F. I. SHAFER, in charge. ROADS.—J. P. MARTIN, in charge.

WATER POWER.—J. P. MARTIN, in charge.

#### EXPERIMENT STATION.

Great Basin, Manti National Forest.—ARTHUR W. SAMPSON, plant ecologist, in charge; F. S. Baker, forest examiner, Ephraim, Utah.

#### NATIONAL FORESTS.

#### ARIZONA.

Dixie.—See Utah.

Kaibab.—John C. Roak, forest supervisor, Kanab, Utah (WU).

#### IDAHO.

Boise.—E. GRANDJEAN, forest supervisor, Boise (WU); Lyle F. Watts, deputy forest supervisor.

Cache.—See Utah.

Caribou.—C. D. SIMPSON, forest supervisor, Montpelier (WU); G. G. Henderson, deputy forest supervisor.

Challis.—David Laing, forest supervisor, Challis (WU).

Idaho.-Walter G. Mann, forest supervisor, McCall (WU, P).

Lemhi.—CHAS. F. EVANS, forest supervisor, Mackay (WU).

Minidoka.—W. M. CAMPBELL, forest supervisor, Burley (WU); J. W. Stokes, deputy forest supervisor.

Payette.—Guy B. Mains, forest supervisor, Emmett (WU); F. S. Moore, deputy forest supervisor.

Salmon.—S. C. SCRIBNER, forest supervisor, Salmon (WU); Clinton M. Mangun, deputy forest supervisor.

Sawtooth.—Herbert G. McPheters, forest supervisor, Hailey (WU); Leslie E. Dodge, deputy forest supervisor.

Targhee.—SAM'L W. STODDARD, forest supervisor, St. Anthony (WU); John N. Kinney and Ernest A. Renner, deputy forest supervisors.

Weiser.—J. B. LAFFERTY, forest supervisor, Weiser (WU); T. V. Pearson, deputy forest supervisor.

#### NEVADA.

Humboldt.—C. E. FAVRE, forest supervisor, Elko (WU); Oscar W. Mink, deputy forest supervisor.

Nevada.—ALEXANDER McQueen, forest supervisor, Ely (WU).

Toiyabe.—W. W. BLAKESLEE, forest supervisor, Austin (WU, P).

#### UTAH.

Ashley.—W. M. ANDERSON, forest supervisor, Vernal (WU).

Cache.—E. C. Shepard, forest supervisor, Logan (WU); Edmund B. S. Spencer, deputy forest supervisor.

Dixie.—WM. M. MACE, forest supervisor, St. George (WU).

Fillmore.—JOHN RAPHAEL, forest supervisor, Richfield (WU); A. M. Woodbury, deputy forest supervisor.

Fishlake.—C. A. MATTSSON, forest supervisor, Salina (WU).

La Sal.—Chas. DeMoisy, Jr., forest supervisor, Moab (WU).

Manti.—J. W. HUMPHREY, forest supervisor, Ephraim (WU).

Minidoka.—See Idaho.

Powell.—Geo. H. BARNEY, forest supervisor, Escalante (WU).

Sevier.——, forest supervisor, Panguitch (WU); Wallace M. Riddle, acting forest supervisor.

Uinta.—, forest supervisor, Provo (WU); R. D. Garver, forest examiner.

Wasatch.—CARL B. ARENTSON, forest supervisor, Salt Lake City (WU, P); David A. Arrivee, deputy forest supervisor; Louis B. Koch, scaler, in charge of Standard Timber Co. sale.

#### WYOMING.

Bridger.—LEE E. COOPER, forest supervisor, Pinedale (WU); E. E. McKee, deputy forest supervisor.

Teton.—A. C. McCain, forest supervisor, Jackson (WU).
Wyoming.—CHARLES A. BEAM, forest supervisor, Afton (WU).

## DISTRICT 5.

#### CALIFORNIA DISTRICT.

California and southwestern Nevada. Office, 114 Sansome Street, San Francisco, Calif.

COERT DUBOIS, district forester.

INFORMATION.—R. F. HAMMATT, in charge; J. D. MAXFIELD, in charge exhibits.

LAW.—Office of the Solicitor (Forest Service branch). H. P. DECHANT, assistant to the solicitor, in charge.

ACCOUNTS .- A. W. SMITH, district fiscal agent.

OPERATION.—R. HEADLEY, assistant district forester, CLARENCE WILEY, national forest inspector.

TELEPHONE ENGINEERING.—F. H. HAFLEY, telephone engineer.

MAINTENANCE.—FRANK HAYNIE.

LAW ENFORCEMENT.—C. L. HILL, forest examiner in charge. Field Investigations, C. V. Brereton, national forest examiner.

SILVICULTURE .-- T. D. WOODBURY, assistant district forester.

Logging Engineering.—D. C. Birch, forest examiner.

TIMBER SALES .- J. C. ELLIOTT, lumberman.

TIMBER SURVEYS .- O. M. EVANS, forest examiner.

PLANTING AND FOREST INVESTIGATIONS.—S. B. SHOW, E. N. MUNNS, C. A. KUPFER.

INSECT CONTROL.—RALPH HOPPING, national forest examiner. FOREST PATHOLOGY.—E. P. MEINECKE, consulting pathologist. GRAZING.—C. E. RACHFORD, assistant district forester. Studies.—F. D. Douthitt, grazing examiner.

LANDS.—L. A. BARRETT, assistant district forester; Chas. S. Brothers, national forest inspector.

MINERAL EXAMINATION, LAND CLASSIFICATION, AND ENTRY SURVEYS.— W. H. FRIEDHOFF, mineral examiner in charge of field work.

ENGINEERING.—F. H. FOWLER, district engineer; J. C. Dort, assistant district engineer.

MAPS AND SURVEYS .- PERCY L. DAY.

Drafting.—R. E. L. BORGFELDT.

ROADS.—J. C. DORT, in charge.

WATER POWER.-F. H. FOWLER, in charge.

#### NATIONAL FORESTS.

#### CALIFORNIA.

Angeles.—R. H. CHARLTON, forest supervisor, Los Angeles (WU, P). California.—J. D. Coffman, forest supervisor, Willows (WU); B. H. Mace, deputy forest supervisor.

Cleveland, -M. R. TILLOTSON, forest supervisor, Escondido (WU).

Eldorado.—EDWARD I. KOTOK, forest supervisor, Placerville (WU).

Inyo.—C. E. JORDAN, forest supervisor, Bishop (WU).

Klamath.—W. A. Huestis, forest supervisor, Yreka (WU).

Lassen.—James O. Morrow, forest supervisor, Red Bluff (WU); T. C. West, deputy forest supervisor.

Modoc.—W. G. Durbin, forest supervisor, Alturas (WU).

Mono. - See Nevada.

Monterey.—J. R. Hall, forest supervisor, Santa Barbara (P).

Plumas.—D. N. Rogers, forest supervisor, Quincy (WU); George R. Orr, lumberman.

Santa Barbara.—J. R. HALL, forest supervisor, Santa Barbara (P).

Sequoia.—S. W. WYNNE, forest supervisor, Bakersfield (WU); F. P. Cunningham, deputy forest supervisor.

Shasta.—N. H. Sloane, forest supervisor, Sisson (P); Belknap C. Goldsmith, forest examiner. Pilgrim Creek Nursery:
Roscoe Weaver, forest examiner.

Sierra.—M. A. BENEDICT, forest supervisor, Northfork (WU via Friant-Exp. via Friant).

Stanislaus.—J. V. Wulff, forest supervisor, Sonora (WU).

Tahoe.—R. L. P. BIGELOW, forest supervisor, Nevada City (WU).

Trinity.—E. V. Jotter, forest supervisor, Weaverville (WU).

#### NEVADA.

Eldorado.—See California.

Inyo.—See California.

Mono. - WM. M. MAULE, forest supervisor, Minden (WU).

Tahoe.—See California.

## DISTRICT 6.

#### NORTH PACIFIC DISTRICT.

Washington, Oregon, and Alaska. Office, Post Office Building, Portland, Oreg.

GEO. H. CECIL, district forester; A. G. JACKSON, education.

LAW.—Office of the Solicitor (Forest Service branch). W. F. STALDY, assistant to the solicitor, in charge.

ACCOUNTS.—H. I. Loving, district fiscal agent.

OPERATION.—C. H. Flory, assistant district forester; M. L. Mer-RITT; forest examiner, improvements; C. M. Allen, telephone engineer; H. M. White, national forest inspector; W. B. Osborne, Jr., forest examiner, fire protection; T. M. Talbott, fire trespass.

MAINTENANCE.—H. G. WHITNEY.

INSPECTION (Protection of Oregon & California Railroad lands and cooperation under Weeks law).—R. H. Chapler, forest examiner.

SILVICULTURE.—THORNTON T. MUNGER, forest examiner, in charge; W. T. Andrews, logging engineer; Edwin C. Erickson, lumberman; Bruce E. Hoffman, and G. A. Bright, forest examiners; A. J. Jaenicke, forest examiner on insect control.

PLANTING .- J. F. KUMMEL and W. H. LEVE forest examiners.

GRAZING.—E. N. KAVANAGH, assistant district forester; J. L. Peterson, grazing examiner.

LANDS .- C. J. Buck, assistant district forester.

CLAIMS AND STATIONS.—FRANK A. LAW, Jr., clerk.

LAND CLASSIFICATION (ALASKA).—ASHER IRELAND and WELLMAN HOLBROOK.

SETTLEMENT.—A. H. WRIGHT, national forest examiner.

ENTRY SURVEYS.—GEO. W. ROOT and E. R. JOHNSON, surveyors.

RECREATION.—FRED W. CLEATOR, deputy forest supervisor.

LAND EXCHANGES .-- WM. RYLE TEED, national forest examiner.

ENGINEERING .- P. H. DATER, district engineer.

Maps and Surveys.—H. D. Foster, forest examiner.

Drafting.—R. H. ROBERTSON.

Surveys.—James Frankland.

ROADS.—H. L. PLUMB and CECIL A. LORD.

WATER POWER .- P. H. DATER.

PRODUCTS.—W. H. GIBBONS, forest examiner in charge; T. J. STARKER, forest examiner, Portland; C. W. ZIMMERMAN, engineer in forest products, Seattle.

#### EXPERIMENT STATION.

Wind River, Columbia National Forest.—Julius V. Hofmann, forest examiner, in charge, Stabler, Wash.

#### NATIONAL FORESTS.

#### ALASKA.

- Chugach.—W. G. Weigle, forest supervisor, Ketchikan (SC, U. S. A., WU); C. T. Beach, forest supervisor, Cordova (WU, P).
- Tongass.—W. G. Weigle, forest supervisor, Ketchikan (SC, U. S. A., WU); B. F. Heintzleman, deputy forest supervisor; R. E. Kan Smith, forest examiner.

#### OREGON.

- Cascade.—C. R. Seitz, forest supervisor, Eugene (WU, P); R. S. Wallace, forest examiner.
- Crater.—H. B. RANKIN, forest supervisor, Medford (WU, P); Fred A.

  Matz, national forest examiner.
- Deschutes.—Norman G. Jacobson, forest supervisor, Bend' (WU, P);
  H. E. Vincent, deputy forest supervisor; W. J. Sproat,
  forest examiner; F. V. Horton, grazing examiner.
- Fremont.—GILBERT D. BROWN, forest supervisor, Lakeview (WU via Reno, Nev., P); R. A. Bradley and D. F. Brennan, deputy forest supervisors.
- Klamath.—See California.
- Malheur.—Cy. J. BINGHAM, forest supervisor, John Day (WU via Baker-Exp. via Baker).
- Minam.—R. M. Evans, forest supervisor, Baker (WU); J. F. Irwin, deputy forest supervisor.
- Ochoco.—V. V. HARPHAM, forest supervisor, Prineville (WU, PT & T);

  Douglas C. Ingram, grazing examiner.
- Oregon.—T. H. SHERRARD, forest supervisor, Portland (WU, P); Carl B. Neal, deputy forest supervisor.
- Santiam.—C. C. HALL, forest supervisor, Albany (WU, P).
- Siskiyou.—N. F. MACDUFF, forest supervisor, Grants Pass (WU, P); T. M. Hunt, deputy forest supervisor; H. A. Haefner, forest examiner.
- Siuslaw.—RALPH S. SHELLEY, forest supervisor, Eugene (WU, P); H. M. Johnson, forest examiner.
- Umatilla .- W. W. CRYDER, forest supervisor, Pendleton (WU, P).
- Umpqua.—S. C. Bartrum, forest supervisor, Roseburg (WU, P); George Bonebrake, deputy forest supervisor.
- Wallowa.—H. W. Harris, forest supervisor, Wallowa (WU); N. J. Billings, deputy forest supervisor; A. R. Wilcox, forest examiner.
- Wenaha.—See Washington.

Whitman.—R. M. Evans, forest supervisor, Baker (WU); I. E. Jones, deputy forest supervisor; George L. Drake, forest examiner; Walter L. Dutton, grazing examiner.

#### WASHINGTON.

- Chelan.—E. H. MACDANIELS, forest supervisor, Chelan (PT & T-Exp. via Wenatchee).
- Columbia.—F. H. Brundage, forest supervisor, Portland, Oreg. (WU, P). Wind River Nursery: R. L. Cline, forest planting assistant in charge, Carson, Wash.
- Colville .- C. C. Reid, forest supervisor, Republic (WU, P).
- Okanogan.-P. T. HARRIS, forest supervisor, Okanogan (PT & T-Exp. via Wenatchee); G. E. Mitchell, deputy forest supervisor.
- Olympic.—R. L. FROMME, forest supervisor, Olympia (WU, P); Chris Morgenroth, deputy forest supervisor; A. A. Griffin, and O. F. Ericson, forest examiners.
- Rainier.—G. F. Allen, forest supervisor, Tacoma (WU, P); E. J. Fenby, deputy forest supervisor; F. B. Kellogg, forest examiner.
- Snoqualmie.—Lewis A. Treen, Jr., acting forest supervisor, Seattle (WU, P); E. J. Hanzlik, forest examiner.
- Washington.—C. H. PARK, forest supervisor, Bellingham (WU, P); R. L. Campbell, deputy forest supervisor.
- Wenaha.—John C. Kuhns, forest supervisor, Walla Walla (WU). Wenatchee.—A. H. SYLVESTER, forest supervisor, Leavenworth (WU).

## DISTRICT 7.

#### EASTERN DISTRICT.

Arkansas, Alabama, Florida, Oklahoma, South Carolina, Georgia, North Carolina, Tennessee, Virginia, West Virginia, New Hampshire, Maine, Porto Rico. Office, Atlantic Building, Washington, D. C.

F. W. REED, acting district forester.

ACCOUNTS .- J. H. KERRICK, district fiscal agent.

OPERATION, ) H. O. STABLER, assistant district forester; R. C. ENGINEERING. HUEY, roads.
SILVICULTURE.—I. F. ELDREDGE, assistant district forester.

GRAZING, ) F. W. REED, assistant district forester; W. F. HILL, land LANDS, ( classification.

#### NATIONAL FORESTS.

#### ALABAMA.

Alabama.—Sam'l. L. Corbin, forest assistant in charge, Moulton.

#### ARKANSAS.

Arkansas.—John L. Cobbs, Jr., forest supervisor, Hot Springs (WU, P); Chas. A. Plymale, deputy forest supervisor; E. L. Lindsey, forest examiner, timber sales.

Ozark.—C. J. HELLER, forest supervisor, Russellville (WU).

#### FLORIDA.

Florida.—L. L. BISHOP, forest supervisor, Pensacola (WU, P); C. H. Rogers, deputy forest supervisor.

#### GEORGIA.

Cherokee-Georgia.—H. G. SPAHR, forest supervisor, Athens, Tenn. (WU, P).

Savannah (includes south half of Nantahala and the Savannah purchase areas).—R. W. Shields, forest supervisor, Clayton (WU, P); E. J. Mead, forest examiner, timber surveys.

#### MAINE.

White Mountain.—See New Hampshire.

#### NEW HAMPSHIRE.

White Mountain.—J. J. FRITZ, forest supervisor, Gorham (WU, P); E. D. Fletcher, national forest examiner.

#### NORTH CAROLINA.

Pisgah (includes Boone, Mount Mitchell, north half of Nantahala, and Pisgah purchase areas and Pisgah National Forest and Game Preserve).—Verne Rhoades, forest supervisor, Asheville (WU, P); J. St. J. Benedict, forest examiner, timber sales; W. J. Damtoft, forest examiner.

#### OKLAHOMA.

Wichita.—FRANK RUSH, forest supervisor, Cache (WU).

#### PORTO RICO.

Luquillo.—E. MURRAY BRUNER, forest supervisor, Rio Piedras.

#### SOUTH CAROLINA.

Savannah.--See Georgia.

#### TENNESSEE.

White Top (includes Unaka and White Top purchase areas).—H. L. RUSSELL, forest examiner in charge, Johnson City (WU, P).

Cherokee.—See Georgia.

#### VIRGINIA.

Natural Bridge.—J. H. FAHRENBACH, forest supervisor, Buena Vista (WU, P); H. M. Sears, forest examiner.

Shenandoah (includes Shenandoah, Massanutten, and Potomac purchase areas).—S. H. Marsh, forest supervisor, Harrisonburg (WU, P); S. H. Thompson, forest examiner.
White Top.—See Tennessee.

#### WEST VIRGINIA.

Monongahela.—H. L. Johnson, forest examiner, in charge, Elkins (WU, P).

## SERVICE CHANGES.

#### APPOINTED.

RESEARCH.—Austin F. Hawes, extension specialist in forestry.

LABORATORY.—Leroy P. Elliott and Herbert S. Grenoble, industrial specialists in forest products; Benjamin L. Nelson and Clyde A. Plaskett, assistant engineers in forest products; Samuel Butterman, assistant chemist in forest products; Charles R. Thomas, assistant in utilization of technical data.

DISTRICT 1.—Harold R. Richards, Lolo; Arthur J. Halvorson, Flathead; Frank S. Pitt, Selway; Paul H. Gerrard, Clarwater; forest rangers. Karl J. George, Coeur d'Alene; A. M. Caisse (reinstatement), St. Joe, forest clerks. Sarah Shockey, messenger; Jessie L. Patten, clerk (stenographer and typewriter); William G. Wahlenberg, forest assistant; Etta Brechbill, draftsman (copyist, topographic).

DISTRICT 2.—Warner Tyler, White River, forest clerk. Mary B. Hughes, Gunnison; Rose Katz, Montezuma, clerks (stenographers and typewriters). Ernest M. Davis, Harry J. King, and Roy E. Wible, Arapaho; Anthony C. Clements and George A. Price, Black Hills; James A. Hodges and Arthur L. Mills, Gunnison; Reed A. Higby, Hayden; William S. Brown, William Neuswauger, and Galatia M. Sprague, Holy Cross; Frank E. Henry, Medicine Bow; Clyde L. Breckenridge and John A. Sharp, San Isabel; Arthur E. Cole and Charles W. Frost, San Juan; Robert W. McDonald and George A. Powell, White River, forest rangers. Phyllis I. Dennee, draftsman (copyist, topographic); William P. Pagett, photostat foreman; Harry W. Elofson, forest ranger.

District 3.—George Leonidus Haynes, Apache; Arthur William Pigott and Arthur B. Young, Coronado; Hugh E. Chipman, John J. Gualrapp, and Charles P. Smith, Datil; Frank Hiler, Jay R. McLure, and John Ray Painter, Gila; Eddy E. Hudman (reinstatement) and Barnard A. Hendricks, Lincoln; Oscar J. Williams, Santa Fe; George G. Curry, Tonto; Sherman B. Moore, Tusayan; Robert Scott Bingham, Grand Canyon, forest rangers. Mrs. Ethel Anderson (by transfer from War Department), Gila; Josephine C. Cunningham, Santa Fe, clerks (stenographers and typewriters). Ina B. Wright, Tonto, clerk (typewriter); Dorris Claire Hooppaw, Lucy D. Slaughter, and Virginia Simmons, clerks (stenographers and typewriters); Doris S. Pineau, draftsman (copyist, topographic).

DISTRICT 4.—Ennis R. Miller, Bridger; Sterling R. Justice, Cache; Lewis G. Mathews, Caribou; Wallace H. Adair, Kaibab; Ralph A. Taylor, La Sal; Don Mayo Casterlin and Carl S. Kennedy, Salmon; Earle W. Harris, Charles S. Horel, and Roy H. McDongal, Teton; William H. Staker, Wasatch; Ethel H. Fears, Weiser, forest rangers. Mabel M. Sturgis, Minidoka, forest clerk. Ruth B. Goodrich, Cache; Addie Gottfredson, Powell, clerks (stenographers and typewriters).

DISTRICT 5.—Walter E. Jotter, Plumas; George O. L. Estabrook, Shasta, forest rangers. Roscoe B. Weaver, Shasta, forest examiner; Roy H. Blood, Sierra, clerk (stenographer and typewriter).

DISTRICT 6.—Axel W. Erickson (reinstatement), Columbia; Wellman Holbrook, Tongass; Robert H. Harper (reinstatement), Wallowa; Frank W. Mattson (reinstatement), Whitman, forest rangers. Gerald H. Wenner, Chelan, forest clerk; Margaret M. Peterson, clerk (detail in office of the secretary of the eleventh civil-service district, Seattle, Wash.). Victor H. W. Flach, draftsman (copyist, topographic); Theodore P. Flynn, draftsman (topographic); Marian E. Glasscock, Lillian R. Howatt, Esther B. Deckman, clerks (stenographers and typewriters).

DISTRICT 7.—Jerry M. Jordan, Florida; Hugh R. Moore, Ozark, forest rangers.

#### PROMOTED IN RANK.

DISTRICT 1.—William L. Baldwin, Sioux, forest assistant to forest examiner; Fred E. Thieme, surveyor to assistant district engineer.

DISTRICT 2.—William L. Barker, jr., forest ranger to surveyor; Jesse M. Mann, forest ranger to grazing assistant. James C. Jensen, Medicine Bow, forest ranger to scaler.

DISTRICT 6.—Charles T. Beach, deputy forest supervisor, Siuslaw, to forest supervisor, Chugach; Roland L. Cline, Columbia, forest ranger to forest planting assistant; John D. Holst and George H. West, Crater; Stephen A. Moore, Siskiyou; Lonzo D. Hurt, Snoqualmie; Francis A. Varo, Wenatchee; Earl H. McArdle, Olympic, forest rangers to scalers. Charles J. Conover, forest assistant to forest examiner.

DISTRICT 7.—W. Elston Hedges, Natural Bridge, forest ranger to national forest examiner.

#### CHANGE IN DESIGNATION.

DISTRICT 2.—Alve L. Richey, Routt, deputy forest supervisor to forest ranger.

DISTRICT 3.—Carrie V. Stuck, Coronado, clerk (stenographer and typewriter) to forest clerk.

DISTRICT 4.—Robert W. Strong, Idaho, clerk (typewriter) to forest ranger.

DISTRICT 6.—Harold D. Foster, deputy forest supervisor to forest examiner; Thomas M. Hunt, forest supervisor, Chugach, to deputy forest supervisor, Siskiyou.

DISTRICT 7.—Rudolph Dieffenbach, forest supervisor to forest examiner.

#### RESIGNED.

Acquisition.—George F. Greenleaf, forest assistant.

LABORATORY.—Olenus L. Sponsler, wood technologist; Henry J. Hegel, assistant in lumbering; Harry M. Hale and William W. Morris,

industrial examiners in forest products; Harold M. Mayo, assistant chemist in forest products; Frank J. Hallauer and Charles E. Dennis, jr., assistant engineers in forest products.

DISTRICT 1.—Emory L. Marlow, Lewis and Clark; Fred N. Thomson, Jefferson; Frank Foster, Beartooth, forest rangers; Georgia Hollier, Gallatin; Nellie C. Short, Coeur d'Alene, clerks (stenographers and typewriters); Eugene D. Gardner, mineral examiner; Joseph W. Streit, forest ranger; Fay G. Clark, Lenthall Wyman, forest examiners.

DISTRICT 2.—William Wiehe, Black Hills, deputy forest supervisor; Alfred P. Larson, Bighorn, forest clerk; Frank R. Olds, Black Hills; John W. Boyd, San Isabel; Chauncey D. Noble, Shoshone; John H. Pritchard, Uncompangre; George R. Ziegler, White River, forest rangers. H. Ellis Sealing, draftsman (topographic).

DISTRICT 3.—Ellis W. Lund, Apache; Arthur H. Zachau, Coconino; Willard Z. Lyons, Lincoln; Franklin H. Owens, Sitgreaves, forest rangers. Elliot S. Barker, Carson, forest supervisor; Lorenzo B. Maxwell, Coconino, deputy forest supervisor; Thorvald S. Hansen, Fort Valley Experiment Station, forest assistant.

DISTRICT 4.—Bernard E. Mattsson, Manti; Adolph W. Jensen, Uinta, forest supervisors. Frank Hedrick, Boise; Ernest W. Herbert, Fillmore; James M. Ryan, Humboldt; Harmon A. Shannon, Payette; George R. Ashton, Salmon; Clayton F. Brower and John V. Manwill, Uinta; William S. Kalbaugh, forest rangers. Harrold C. Haglund, Humboldt; Otto H. Tschanz, Lemhi, forest clerks. Emily R. Bundy, clerk (stenographer and typewriter).

DISTRICT 5.—John E. Zollers, Mono; Alfred R. Ratcliff, Plumas, forest clerks. Joseph E. Elliott, Stanislaus; William D. Campbell, Tahoe, forest rangers.

DISTRICT 6.—James Allen, Tongass; Dee Wright, Oregon, forest rangers. Stanton G. Smith, Snoqualmie, forest supervisor. Jane L. Curtis, clerk (stenographer and typewriter); Mrs. Frances Wilson, forest clerk; Howard B. Oakleaf, forest examiner.

DISTRICT 7.—William B. Boyes, Arkansas; Troy A. Simpkins, Wichita, forest rangers. Webb Hollingsworth, Pisgah, assistant forest ranger.

With deep regret announcement is made of the death of E. D. Crittenden, scaler, France, October 15; Harry A. Chamberlain, forest ranger, Tonto, October 17; Jack L. Oquin, forest ranger, Salmon, December 26; Joseph M. Daly, forest ranger, Coronado, January 22; Charles O. Leonard, forest ranger, Modoc, January 27; E. C. Rogers, forest examiner, district 1, February 11; Ray L. Greathouse, forest ranger, Jeffcrson, March 12.

## SERVICE NOTES FOR APRIL.

These notes contain instructions and necessary information to forest officers, and will therefore be carefully read and kept on file for reference.

#### EDITOR.

## Agricultural Yearbook-

A limited supply of the Yearbook of the Department of Agriculture for 1918, which will be issued probably in May, 1919, is allotted to the Forest Service for its members. Copies will be supplied as in former years to district foresters and supervisors for their personal use. Other forest officers may have personal copies by sending their names to the Forester. Requests will be filed and filled in the order of their receipt as long as the supply lasts. Copies will be supplied as usual by the Library for district libraries.

#### LAW.

#### OFFICE OF THE SOLICITOR.

#### Law Cases in District 1-

United States v. Great Northern Railway Co. (Stillwater fire): Fire trespass, civil, Blackfeet National Forest. Case closed January 20, 1919, upon payment by trespasser of \$911.65, the cost of extinguishing the fire and the value of the timber destroyed.

United States v. John Johnson and John Battle: Occupancy trespass, criminal, stealing Government property, Flathead National Forest. Defendant indicted in Federal court. Pleaded guilty and fined \$100 each. Case closed.

United States v. Klochmann Brothers: Grazing trespass, civil, Pend Oreille National Forest. Case closed upon payment of \$45, value of forage consumed.

United States v. Gene McCarthy, grazing trespass, civil, Helena National Forest. Case closed upon payment of \$75, value of forage consumed.

United States v. Gene McCarthy, grazing trespass, civil, Helena National Forest. Case closed upon payment of \$27.80, value of forage consumed.

United States v. Gene McCarthy, grazing trespass, civil, Helena National Forest. Case closed upon payment of \$48.33, value of forage consumed.

United States v. Gene McCarthy, grazing trespass, civil, Helena National Forest. Case closed upon payment of \$46, value of forage consumed.

United States v. Matt Polish, grazing trespass, civil, Beaverhead National Forest. Case closed upon payment of \$23.33, value of forage consumed.

United States v. Spokane Ranch & Water Co., grazing trespass, civil, Helena National Forest. Case closed upon payment of \$36.28, value of forage consumed.

United States v. Weber Logging & Timber Co., fire trespass, civil, Coeur d'Alene National Forest. Case closed upon payment of \$27.52, damage done to timber.

#### Law Cases in District 2-

United States v. Jose Espinosa: Grazing trespass, Rio Grande National Forest. Case closed upon payment of \$37.50 actual damages.

United States v. H. G. Marvin: Grazing trespass, civil, Shoshone National Forest. Defendant confessed judgment, which was paid in full in the sum of \$205.60, and costs amounting to \$24.07.

United States v. H. G. Marvin: Grazing trespass, criminal, Shoshone National Forest. Defendant pleaded guilty and was fined \$5 and costs; costs amounted to \$71.95. Fine and costs paid.

United States v. Bighorn Land & Cattle Co.: Occupancy trespass, Hayden National Forest. Bill of complaint prepared and referred to United States attorney.

United States v. Chicago & North Western Railroad Co.: Fire trespass, Black Hills National Forest. Bill of complaint filed.

United States v. Colorado, Wyoming & Eastern Railroad Co.: Fire trespass, Medicine Bow National Forest (Wyoming district). Compromise settlement accepted and draft for \$3,435.95 in settlement of damages forwarded to Solicitor of the Treasury. Costs in the sum of \$34.41 paid.

United States v. Colorado, Wyoming & Eastern Railroad Co.: Fire trespass, Colorado National Forest (Colorado district). Compromise settlement accepted and draft for \$3,819.29 in settlement of damages forwarded to the Solicitor of the Treasury. Costs in the sum of \$40.90 paid.

United States v. John Bebington: Grazing trespass, Harney National Forest. Judgment rendered in the sum of \$150 and costs, \$29.05; \$150 paid and United States attorney recommends that judgment be satisfied without the payment of costs.

United States v. Fall River Power Co.: Occupancy trespass, Pike National Forest. Answer to complaint filed February 8, 1919.

United States v. Charles Hidley: Occupancy trespass, Bighorn National Forest. Decree entered enjoining and restraining defendant from occupying the land. Damages awarded in the sum of \$54 and costs \$43.41.

United States v. Fred Jackson and Emmet Pyle: Property trespass (criminal), Rio Grande National Forest. Upon recommendation of this department, Attorney General directed the United States attorney to nolle pros the case.

United States v. J. A. Koen: Timber trespass, Montezuma National Forest. Bill of complaint filed.

#### Law Cases in District 3-

United States v. J. H. T. Cosper: Grazing trespass, Apache National Forest. Case closed on payment of \$121.25, actual damages.

United States v. D. J. Cox: Grazing trespass, Coronado National Forest. Case closed on payment of \$21.60, actual. and \$30, punitive, damages.

United States v. M. N. Davidovich: Grazing trespass, Coronado National Forest. Case closed on payment of \$6.60, actual damages.

United States v. Jose Fram: Grazing trespass, Santa Fe National Forest. Case closed on payment of \$40, actual damages.

United States v. W. E. Morgan: Grazing trespass, Tusayan National Forest. Case closed on payment of \$33, actual damages.

United States v. Mrs. Lou Piper: Grazing trespass, Crook National Forest. Case closed on payment of \$37.42, actual damages.

United States v. Sanford Rowe: Grazing trespass, Tusayan National Forest. Case closed on payment of \$115.60, actual damages.

United States v. Chambers & Newman: Grazing trespass, Prescott National Forest. Case closed on payment of \$14.34, actual damages.

United States v. Walter Hill: Grazing trespass, Lincoln National Forest. Case closed on payment of \$27.20, actual, and \$25, punitive, damages.

United States v. W. W. Perkins: Grazing trespass, Prescott National Forest. Case closed on payment of \$103.79, actual, and \$50, punitive, damages.

United States v. D. H. Ritter: Grazing trespass, Tusayan National Forest. Case closed on payment of \$45.33, actual damages.

United States v. J. S. Sanchez: Grazing trespass, Carson National Forest. Case closed on payment of \$63, actual damages.

United States v. Clark & Campbell: Grazing trespass, Prescott National Forest. Case closed on payment of \$47.58, actual damages.

United States v. Henry F. Jordan: Grazing Trespass, Carson National Forest. Case closed on payment of \$54.15, actual damages.

United States v. B. F. Sweetwood: Grazing trespass, Tusayan National Forest. Case closed on payment of \$135.10, actual damages.

United States v. A. H. Noon, sr.: Grazing trespass, Coronado National Forest. Case closed on payment of \$54, actual damages.

United States v. E. B. Perrin: Grazing trespass, Tusayan National Forest. Case closed on payment of \$36.64, actual damages.

United States v. H. S. Perry: Grazing trespass, Tusayan National Forest. Case closed on payment of \$19.50, actual damages.

United States v. Clark & Campbell: Grazing trespass, Prescott National Forest. Case closed on payment of \$67.50, actual damages.

United States v. John Hennessy: Grazing trespass, Prescott National Forest. Case closed on payment of \$13.45, actual damages.

United States v. James A. Carey: Grazing trespass, Mazano National Forest. Demurrer to cross complaint in answer of defendant argued, and sustained.

United States v. Fred Howard: Grazing trespass, Manzano National Forest. Judgment of \$22.50, actual damages, with 63 cents interest, and costs of \$275.95 collected by United States marshal.

United States v. Epifanio Ortiz: Grazing trespass, Apache National Forest. Contempt proceedings dismissed after sale of goats, and removal of trespasser from the forest.

United States v. William C. Bell: Grazing trespass, Apache National Forest. Complaint filed with application for preliminary and permanent injunction and damages.

United States v. Carl Washburn: Grazing trespass, Coronado National Forest. Complaint filed with application for preliminary and permanent injunction and damages.

United States v. Joe Stephens: Fire trespass (criminal), Lincoln National Forest. Case dismissed January 8 by United States attorney for insufficient evidence, and on further ground that defendant had been sufficiently punished, having been in jail awaiting trial many months.

United States v. Estenbun Munios: Grazing trespass (criminal), Tusayan National Forest. Complaint filed with United States attorney. Warrant issued, but defendant not yet apprehended.

United States v. State Investment Co.: Occupancy trespass, Santa Fe National Forest. Mora Grant Boundary Case. Argued before Judge Neblett February 17 and 18, 1919.

United States v. B. B. Polk: Grazing trespass, Lincoln National Forest. Case closed on payment of \$197.47, actual damages.

## Law Cases in District 4-

United States v. Myron Nay: Occupancy trespass, Fillmore National Forest. Defendant enjoined from further occupancy of national forest land and has moved from the premises.

United States v. Neal McMillan: Grazing trespass, Fishlake National Forest. Case closed on payment of \$383.16 actual damages.

United States v. William Jones: Grazing trespass, Minidoka National Forest. On filing of suit trespasser paid \$1,998, of which \$1,398 was actual damages and \$600 punitive damages and costs.

United States v. R. J. Day: Grazing trespass, Minidoka National Forest. Case closed on payment of \$74.25 actual and \$25 punitive damages.

United States v. W. G. Davis: Grazing trespass, Caribou National Forest. Suit dismissed on payment of \$741.28 actual and \$100 punitive damages.

United States v. J. E. Rawson: Grazing trespass, Cache National Forest. Case closed on payment of \$33.60 actual damages and \$6.50 costs.

United States v. E. B. Stratton: Grazing trespass, Minidoka National Forest. Judgment rendered for \$154.74.

United States v. C. H. Ogee: Grazing trespass, Sawtooth National Forest. Judgment rendered for \$50 damages and \$24.20 costs.

United States v. Jessie Labrum: Grazing trespass, Ashley National Forest. Case closed on payment of \$10 actual damages.

United States v. Thornton and Leonard Young: Grazing trespass, Caribou National Forest. Case closed on payment of \$75.50 actual damages.

United States v. L. M. Wright: Grazing trespass, Caribou National Forest. Case closed on payment of \$15 actual damages.

United States v. J. P. Pons: Grazing trespass, Cache National Forest. Case closed on payment of \$112 actual damages.

United States v. C. W. Mitchell: Grazing trespass, Humboldt National Forest. Case closed on payment of \$10.28 actual damages.

United States v. M. H. Whitaker: Grazing trespass, Fillmore National Forest. Case closed on payment of \$15 actual damages.

United States v. James Gardner: Grazing trespass, Fillmore National Forest. Case closed on payment of \$8 actual damages.

United States v. William and J. T. Bryan: Grazing trespass, Wasatch National Forest. Case closed on payment of \$22.50 actual damages.

United States v. C. G. Turner: Grazing trespass, Nevada National Forest. Case closed on payment of \$28.80 actual damages.

United States v. L. E. Barney: Grazing trespass, Fillmore National Forest. Case closed on payment of \$17 actual damages.

United States v. Manuel Gaviola: Grazing trespass, Payette National Forest. Case closed on payment of \$15 actual damages.

United States v. C. E. Chandler: Minidoka National Forest. Suit for damages on account of breach of timber sale contract. Case closed on payment of \$33 costs and \$25 in compromise of judgment for \$122.11 damages.

United States v. H. W. Perham: Timber trespass, Caribou National Forest. Case closed on payment of \$11.66 actual damages.

United States v. D. L. and Gertrude Gaudelock: Claims, Salt Lake desert entries 04707 and 01689, La Sal National Forest. Canceled by decision of Commissioner of General Land Office.

United States v. Emigration Rock Placers: Claims, locations, Wasatch National Forest, by decision of Secretary of the Interior on rehearing, finally declared null and void.

United States v. Black Mule Mill Sites, M. E. 010027 Carson: Toiyabe National Forest. Canceled by decision of Commissioner of General Land Office on account of nonuse. Held in this case that development

of water can not be made and protected by mill-site locations under the mining laws.

#### Law Cases in District 5-

United States v. Fred Antchano: Grazing trespass, Mono National Forest. Case closed upon payment of \$44.80 to the clerk of the district court.

United States v. W. A. Sherlock: Grazing trespass, Modoc National Forest. 'Case closed upon payment of \$29.25, actual damages.

United States v. Feather River Lumber Co.: Fire trespass, Plumas National Forest. Case closed upon payment of \$354.05, actual damages.

United States v. Leon Orcier: Grazing trespass, Inyo and Sierra National Forests. Case closed upon payment of \$163.20, actual damages.

United States v. R. T. Jenkins: Grazing trespass, Plumas National Forest. Case closed upon payment of \$342, actual damages.

United States v. Martha E. Page: Grazing trespass, Modoc National Forest. Case closed upon payment of \$79.92, actual damages.

United States v. Talmadge and Warren: Fire trespass, Angeles National Forest. Case closed upon payment of \$6.30, actual damages.

United States v. C. B. & O. B. Fuller Co.: Grazing trespass, Mono National Forest. Case closed upon payment of \$82.50, actual damages.

United States v. Allied Land & Livestock Co.: Grazing trespass, Mono National Forest. Case closed upon payment of \$76.50, actual damages. United States v. Joseph Delwisch: Fire trespass, Eldorado National

Forest. Case closed upon payment of \$7.50, actual damages.

United States v. Dr. Thompson: Fire trespass, Stanislaus National Forest. Fined \$50.

United States v. Robert Potter: Grazing trespass, California National Forest. An information was filed against Robert Potter for illegal grazing. A warrant has been issued for his arrest.

United States v. Valentine Simmons: Fire trespass, California National Forest. Defendant plead guilty. Sentenced to 30 days in the Sacramento County jail. (Defendant had already served six months in jail and the sentence was therefore equivalent to seven months.)

United States v. Joseph Deal: Fire trespass, Tahoe National Forest. Acquitted. Federal Judge Van Fleet criticized the jury for the acquittal of defendant on the evidence presented.

## Law Cases in District 6-

United States v. Reliance Lumber Co.: Fire trespass, Rainier National Forest. Trial held in United States District Court for the Western District of Washington, March 11 and 12, resulted in a verdict in favor of the United States for \$685.87, representing the amount expended in extinguishing the fire. Damage of \$248.91 was eliminated by the jury.

United States v. Charles G. Bowers: Property trespass, Deschutes National Forest. Trial occurred in the United States District Court for Oregon March 19. Defendant was acquitted.

United States v. A. L. Arneson: Fire trespass, Okanogan National Forest. Defendant pleaded guilty in United States District Court for the Eastern District of Washington February 11, 1919. Fined \$100.

United States v. Eugene Newman: Fire trespass, Santiam National Forest. Defendant pleaded guilty in United States District Court for Oregon February 24, 1919. Fined \$25.

United States v. Con Sagrue: Grazing trespass (criminal), Malheur National Forest. Case closed January S, 1919, on receipt of \$100 fine. Defendant pleaded guilty.

United States v. Siberiano Egana: Grazing trespass (criminal), Wallowa National Forest. Case closed March 14, 1919, on payment of \$50 fine. Defendant pleaded guilty.

United States v. Jesus Gaubeca: Grazing trespass (criminal), Wallowa National Forest. Case closed March 14, 1919, on payment of \$50 fine. Defendant pleaded guilty.

United States v. B. C. Williams: Grazing trespass, Columbia National Forest. Case closed January 15 on payment of \$6.48 actual damages.

United States v. Nelson Bros.: Grazing trespass (criminal), Colville National Forest. Pleaded guilty January 21, 1919. Fined \$50 each. Closed February 5, 1919.

United States v. Dan Angland: Grazing trespass, Deschutes National Forest. Closed January 13, 1919, on payment of \$65.81 actual damages.

United States v. O'Callaghan Bros.: Grazing trespass, Fremont National Forest. Closed February 7, 1919, on payment of \$198 actual and \$50 punitive damages.

United States v. W. K. Verling & Henry Fox: Grazing trespass, Fremont National Forest. Closed February 27, 1919, on payment of \$9 actual and \$25 punitive damages.

United States v. Rector Arnwine: Grazing trespass, Malheur National Forest. Closed March 14, 1919, on payment of \$120 actual damages.

United States v. C. C. Hankins: Grazing trespass, Malheur National Forest. Closed January 25, 1919, on payment of \$6.30 actual and \$50 punitive damages.

United States v. John Kilkenny: Grazing trespass, Umatilla National Forest. Closed February 5, 1919, on payment of \$29.25 actual damages.

United States v. Joyce Bros.: Grazing trespass, Malheur National Forest. Closed March 14, 1919, on payment of \$45 actual damages.

United States v. Scott Lindsay: Grazing trespass (criminal), Malheur National Forest. Plead guilty. Fined \$50. Closed January 17, 1919.

United States v. Ned Pierce: Grazing trespass, Malheur National Forest. Closed February 25, 1919, on payment of \$10.35 actual damages.

United States v. George W. Densley: Grazing trespass, Minam National Forest. Closed February 14, 1919, on payment of \$51.60 actual and \$50 punitive damages.

United States v. John G. Hoke: Grazing trespass, Minam National Forest. Closed March 22, 1919, on payment of \$56.43 actual and \$25 punitive damages.

United States v. Blakely Clough & Co.: Grazing trespass, Santiam National Forest. Closed February 5, 1919, on payment of \$216 actual damages.

United States v. Jay H. Dobbin: Grazing trespass, Wallowa National Forest. Closed March 22, 1919, on payment of \$63.63 actual damages.

United States v. J. M. Cotrill: Grazing trespass, Wenaha National Forest. Closed January 17, 1919, on payment of \$8.77 actual and \$15 punitive damages.

United States v. W. W. Rice: Grazing trespass, Wenaha National Forest. Closed February 7, 1919, on payment of \$13.76 actual damages.

#### SERVICE PUBLICATIONS ISSUED.

Department Bulletin 741.—Effect of Grazing upon Aspen Reproduction.

Department Bulletin 745.—Chopped Soapweed as an Emergency Feed for Cattle on Southwest Ranges.

Department Bulletin 753.—The Use of Wood for Fuel.

Department Bulletin 758.—Pulpwood Consumption and Wood-Pulp Production, 1917.

Department Bulletin 768.—Production of Lumber, Lath, and Shingles in 1917.

Circular 129, Office of the Secretary.—Private Forestry.

Unnumbered Publication.—What the National Forests Mean to the Water User.

## CUMULATIVE INDEX TO SERVICE NOTES AND ORDERS.

[April, 1919.]

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Cancellation of patent:

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District 6; Oct. (67).

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Order removing differential on lumber shipped, district 6; Jan. (96).

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Personating a Government officer, district 3; Jan. (95).
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